

ipd4200malltsvdTES-10

Defense Information Infrastructure (DII)

Common Operating Environment (COE)

**Software Version Description (SVD) for the
Latitude-Longitude-Time (LLT) Observation API Segment
(MALLT)
of the**

**Tactical Environmental Support System Next Century
[TESS(NC)]
Meteorology and Oceanography (METOC) Database**

Preliminary Release

Document Version 4.3

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1 SCOPE

1.1 Identification

This Software Version Description (SVD) describes the Latitude-Longitude-Time (LLT) Observation Application Program Interface (API) (MALLT) segment, Version 4.2 series, of the Tactical Environmental Support System Next Century [TESS(NC)] Meteorology and Oceanography (METOC) Database. The MALLT segment provides APIs for the storage and retrieval of METOC point observations. This software is designed to run under the Defense Information Infrastructure (DII) Common Operating Environment (COE), release 3.1, on a Hewlett-Packard computer running HP-UX 10.20 or a personal computer running the Microsoft Windows NT 4.0 operating system with Service Pack 3.

1.2 System Overview

The APIs described in this document form a portion of the METOC Database component of the TESS(NC) Program (Navy Integrated Tactical Environmental Subsystem (NITES) Version I). On 29 October 1996, the Oceanographer of the Navy issued a TESS Program Policy statement in letter 3140 Serial 961/6U570953, modifying the Program by calling for five seamless software versions that are DII COE compliant, preferably to level 5.

The five versions are:

- NITES Version I The local data fusion center and principal METOC analysis and forecast system (TESS(NC))
- NITES Version II The subsystem on the Joint Maritime Command Information System (JMCIS) or Global Command and Control System (GCCS) (NITES/Joint METOC Segment (JMS))
- NITES Version III The unclassified aviation forecast, briefing and display subsystem tailored to Naval METOC shore activities (currently satisfied by the Meteorological Integrated Data Display System (MIDDS))
- NITES Version IV The Portable subsystem composed of independent PCs/workstations and modules for forecaster, satellite, communications, and Integrated Command, Control, Communications, Computer, and Intelligence Surveillance Reconnaissance (IC4ISR) functions (currently the Interim Mobile Oceanographic Support System (IMOSS))
- NITES Version V Foreign Military Sales (currently satisfied by the Allied Environmental Support System (AESS))

NITES I acquires and assimilates various METOC data for use by US Navy and Marine Corps weather forecasters and tactical planners. NITES I provides these users with METOC data, products, and applications necessary to support the warfighter in tactical operations and decision making. NITES I provides METOC data and products to NITES I and II applications, as well as non-TESS(NC) systems requiring METOC data, in a heterogeneous, networked computing environment.

The TESS(NC) Concept of Operations and system architecture require that the METOC Database be distributed both in terms of application access to METOC data and products and in terms of physical location of the data repositories. The organizational structure of the database is influenced by these requirements, and the components of this distributed database are described below.

In accordance with DII COE database concepts, the METOC Database is composed of six DII COE-compliant *shared database* segments. Associated with each shared database segment is an API segment. The segments are arranged by data type as follows:

<u>Data Type</u>	<u>Data Segment</u>	<u>API Segment</u>
Grid Fields	MDGRID	MAGRID
LLT Observations	MDLLT	MALLT
Textual Observations and Bulletins	MDTXT	MATXT
Remotely Sensed Data	MDREM	MAREM
Imagery	MDIMG	MAIMG
Climatology Data	MDCLIM	MACLIM

A typical client-server installation is depicted in Figure 1-1 on the next page. This shows the shared database segments residing on a DII COE SHADE database server, with a NITES I or II client machine hosting the API segments. Communication between API segments and shared database segments is accomplished over the network using ANSI-standard Structured Query Language (SQL).

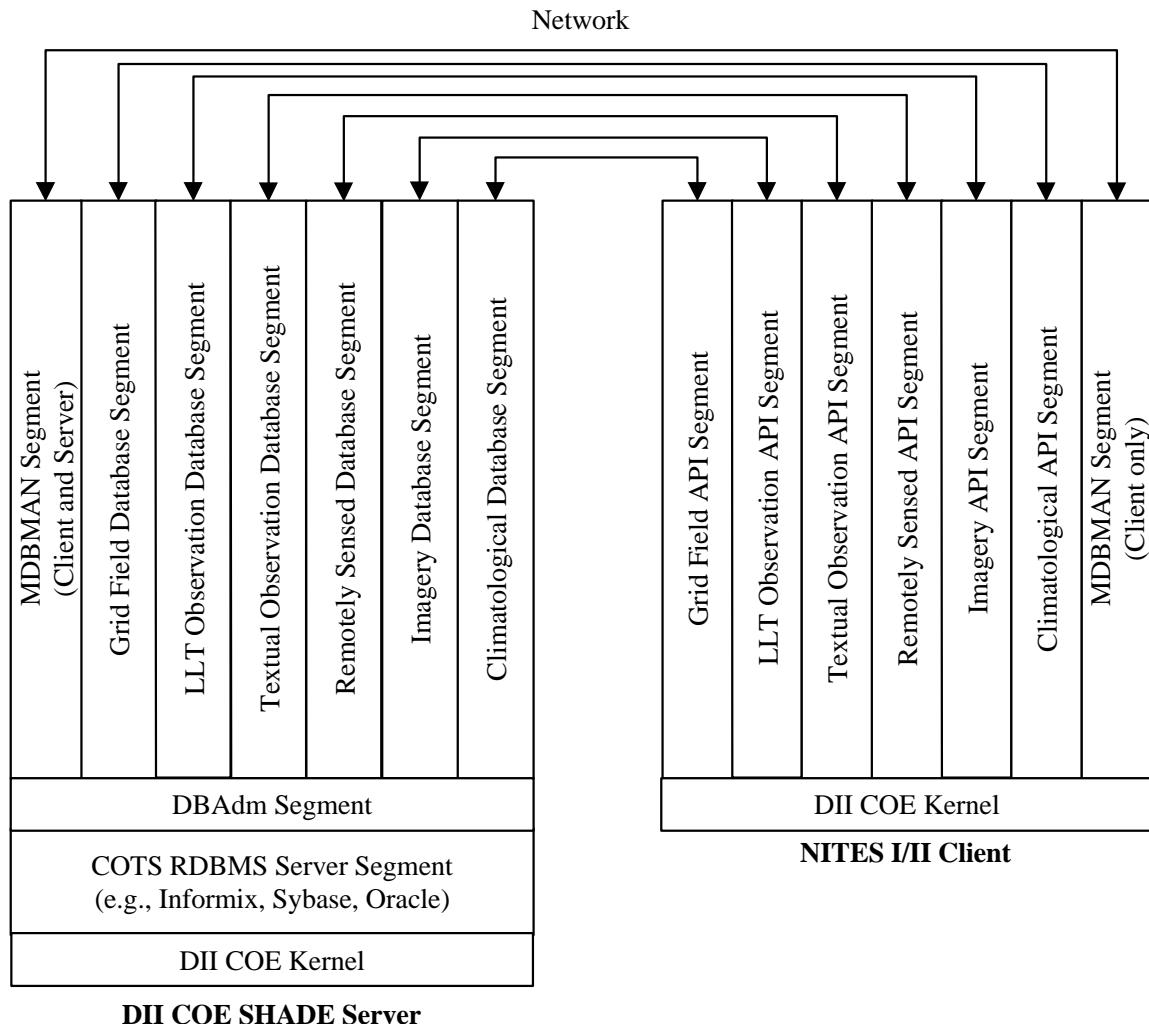


Figure 1-1. TESS(NC) METOC Database Conceptual Organization

The APIs in the MALLT segment deal with point observations. These include surface weather observations (hourlies, specials, synoptic observations, METAR reports Terminal Aerodrome Forecasts (TAFs), etc.), upper air observations (e.g., radiosonde reports, aircraft observations), and ocean soundings (bathythermograph, sound velocity profiles, etc.). For upper air and ocean soundings, the database may also store data derived from the original soundings in the form of upper air profiles and ocean profiles.

1.3 Product Information

1.3.1 Product Qualification

Test and Evaluation (T&E) of the software was performed at IPD's Middletown, RI facility prior to delivery of the software.

1.3.2 Product Restrictions

IPD's intellectual property rights to deliverables defined in this document are covered by the copyright license under the clause in DFARS 252.227-7013 (Nov. 1995).

1.3.3 Product Dependencies

The MALLT segment is hosted on the following hardware:

- Tactical Advanced Computer, TAC-3 (HP 750/755)/TAC-4 (HP J210)
- IBM-Compatible PC

The operating system requirements are:

- TAC-3/TAC-4: HP-UX 10.20
- PC: Windows NT 4.0 with Service Pack 3

The kernel requirements are:

- TAC-3/TAC-4: Kernel 3.0.1.0 with patches through P4
- PC: N/A

The following software must be properly installed prior to loading the MALLT segment:

- Appropriate operating system (as described above),
- Appropriate DII COE Kernel (as described above),
- DII COE Informix Connect Segment (INFXCN), version 1.0.1.0
- LLT Observation Database Segment (MDLLT) installed on a DII COE database server.

2 REFERENCED DOCUMENTS

2.1 Government Documents

Unnumbered 30 September 1997	<i>Database Design Description for the Tactical Environmental Support System/Next Century [TESS(NC)] Meteorological and Oceanographic (METOC) Database</i> , Space and Naval Warfare Systems Command, Environmental Systems Program Office (SPAWAR PMW-185), Washington, DC
ipd4200malltipTES-10 9 October 1998	<i>Installation Procedures (IP) for the Latitude-Longitude-Time (LLT) Observation API (MALLT) Segment of the Tactical Environmental Support System Next Century [TESS(NC)] Meteorology and Oceanography (METOC) Database</i>
ipd4200malltrmTES-10 9 October 1998	<i>Application Programming Interface Reference Manual (APIRM) for the Latitude-Longitude-Time (LLT) Observation API (MALLT) Segment of the Tactical Environmental Support System Next Century [TESS(NC)] Meteorology and Oceanography (METOC) Database</i>
ipd4200malltpmTES-10 9 October 1998	<i>Programming Manual (PM) for the Latitude-Longitude-Time (LLT) Observation API (MALLT) Segment of the Tactical Environmental Support System Next Century [TESS(NC)] Meteorology and Oceanography (METOC) Database</i>

2.2 Non-Government Documents

None.

3 VERSION DESCRIPTION

3.1 Inventory of Materials Released

All physical media and associated documentation for the MALLT segment are listed below.

- MALLT segment v4.2.1.0 (HP-UX) Installation Tape (4 mm DAT cartridge for TAC-3/TAC-4 hardware)
- MALLT segment v4.2.1.0 (Windows NT) Installation diskette(s) (3.5" high-density diskette, IBM format for Windows NT 4.0 with Service Pack 3)
- MALLT segment v4.3 APIRM, dated 9 October 1998
- MALLT segment v4.3 PM, dated 9 October 1998
- MALLT segment v4.3 IP, dated 9 October 1998
- MALLT segment v4.3 SVD, dated 9 October 1998.

3.2 Inventory of Software Contents

A list of all executables and environment files delivered is contained in Appendix A of this document.

3.3 Changes Installed

A list of changes installed since the Preliminary (Developer) Release of the MALLT software is contained in Appendix B of this document.

3.4 Waivers

There are no waivers associated with this software

3.5 Adaptation Data

There are no unique-to-site data contained in the MALLT 4.2.1.0 release.

3.6 Installation Instructions

The MALLT Segment v4.2 series IP referenced in Section 2 of this document provides comprehensive installation instructions for the MALLT segment. The fully installed segment occupies approximately 8.77 MB of disk space on HP-UX machines and 7.30 MB on Windows NT machines. On TAC-3/TAC-4 machines the software requires a minimum of 128 MB of RAM, with 192 MB recommended. On Windows NT machines, the software requires a minimum of 32 MB of RAM, with 128 MB recommended.

3.7 Possible Problems and Known Errors

Known problems and errors with MALLT software are listed in Appendix C of this document.

4 NOTES

4.1 Glossary of Acronyms

AESS	Allied Environmental Support System
API	Application Program Interface
APIRM	API Reference Manual
COE	Common Operating Environment
DII	Defense Information Infrastructure
GCCS	Global Command and Control System
IC4ISR	Integrated Command, Control, Communications, Computer, and Intelligence Surveillance Reconnaissance
IMOSS	Interim Mobile Oceanographic Support System
INFXCN	Informix Connect Segment
IP	Installation Procedures
JMCIS	Joint Maritime Command Information System
JMS	Joint METOC Segment
LLT	Latitude-Longitude-Time
MALLT	LLT Observation API Segment of the TESS(NC) METOC Database
MDLLT	LLT Observation Database Segment of the TESS(NC) METOC Database
METOC	Meteorology and Oceanography
MIDDS	Meteorological Integrated Data Display System
NC	Next Century
NITES	Navy Integrated Tactical Environmental Subsystem

PM	Programming Manual
PTR	Program Trouble Report
SQL	Structured Query Language
SVD	Software Version Description
T&E	Test and Evaluation
TAF	Terminal Aerodrome Forecast
TESS	Tactical Environmental Support System

Appendix A - List of Executables and Environment Files

A.1 File Structure for HP-UX Delivery

```
/home/MALLT
total 16
drwxrwxr-x  2 sysadmin    COE      24 Jul 28 21:05 data
drwxrwxr-x  2 sysadmin    COE     1024 Oct  8 20:08 Scripts
drwxrwxr-x  2 sysadmin    COE     1024 Oct  8 20:09 include
drwxr-xr-x  2 sysadmin    COE     1024 Oct  8 20:09 bin
drwxr-xr-x  2 sysadmin    COE     1024 Oct  8 20:09 lib
drwxrwxr-x  3 sysadmin    COE     1024 Oct  8 20:09 man
drwxrwxr-x  3 sysadmin    COE     1024 Oct  8 20:09 Integ
drwxr-xr-x  2 sysadmin    COE     1024 Oct  8 23:14 SegDescrip

/home/MALLT/data
total 0

/home/MALLT/Scripts
total 0

/home/MALLT/include
total 194
-r--r--r--  1 sysadmin    COE      633 Oct  7 17:59 MALLTAPI.h
-r--r--r--  1 sysadmin    COE     2875 Oct  7 17:59 MALLT.h
-r--r--r--  1 sysadmin    COE     1168 Oct  7 17:59 MALLTDef.h
-r--r--r--  1 sysadmin    COE     2205 Oct  7 17:59 MALLTOBSproto.h
-r--r--r--  1 sysadmin    COE      739 Oct  7 17:59 MALLTExp.h
-r--r--r--  1 sysadmin    COE     1298 Oct  7 17:59 MALLTdsmproto.h
-r--r--r--  1 sysadmin    COE    43517 Oct  7 17:59 MALLTkrlnlproto.h
-r--r--r--  1 sysadmin    COE     2123 Oct  7 17:59 MALLTutlproto.h
-r--r--r--  1 sysadmin    COE     5510 Oct  7 17:59 malltcommon.h
-r--r--r--  1 sysadmin    COE      158 Oct  7 17:59 MALLTProto.h
-r--r--r--  1 sysadmin    COE     1556 Oct  7 17:59 malltdsmgr.h
-r--r--r--  1 sysadmin    COE     4280 Oct  7 17:59 malltoceanprofile.h
-r--r--r--  1 sysadmin    COE     1504 Oct  7 17:59 mallterr.h
-r--r--r--  1 sysadmin    COE      328 Oct  7 17:59 malltllmgr.h
-r--r--r--  1 sysadmin    COE     3429 Oct  7 17:59 malltmacros.h
-r--r--r--  1 sysadmin    COE     4321 Oct  7 17:59 malltmetarob.h
-r--r--r--  1 sysadmin    COE     1752 Oct  7 17:59 malltoceanob.h
-r--r--r--  1 sysadmin    COE     1570 Oct  7 17:59 malltsurfaceob.h
-r--r--r--  1 sysadmin    COE     2119 Oct  7 17:59 malltremsns.h
-r--r--r--  1 sysadmin    COE     1258 Oct  7 17:59 mallttypes.h
-r--r--r--  1 sysadmin    COE     3827 Oct  7 17:59 malltupperairob.h

/home/MALLT/bin
total 798
-rwxr-xr-x  1 sysadmin    COE    20529 Oct  7 17:59 libMALLTUtils.sl
-rwxr-xr-x  1 sysadmin    COE   316250 Oct  7 17:59 libMALLTKernel.sl
-rwxr-xr-x  1 sysadmin    COE   20523 Oct  7 17:59 libMALLTDsmgr.sl
-rwxr-xr-x  1 sysadmin    COE   36951 Oct  7 17:59 libMALLTAPI.sl

/home/MALLT/lib
total 6032
-rwxr-xr-x  1 sysadmin    COE  328280 Oct  7 17:59 libMALLTUtils.a
-rwxr-xr-x  1 sysadmin    COE 2432482 Oct  7 17:59 libMALLTKernel.a
-rwxr-xr-x  1 sysadmin    COE  98034 Oct  7 17:59 libMALLTDsmgr.a
-rwxr-xr-x  1 sysadmin    COE 195196 Oct  7 17:59 libMALLTAPI.a
```

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```
/home/MALLT/man
total 2
drwxrwxr-x 2 sysadmin COE 1024 Oct 8 20:09 man3

/home/MALLT/Integ
total 4
-rwxrwxr-x 1 313 COE 267 Oct 7 23:16 VSOutput
drwxrwxrwx 3 sysadmin COE 1024 Oct 9 02:51 TestSuite

/home/MALLT/SegDescrip
total 42
-r--r--- 1 sysadmin COE 6928 Oct 7 23:16 FileAttrs
-r-xr-xr-x 1 sysadmin COE 356 Oct 7 23:16 PostInstall
-r--r--- 1 sysadmin COE 550 Oct 7 23:16 SegName
-r--r--- 1 sysadmin COE 6228 Oct 7 23:16 ReleaseNotes
-r--r--- 1 sysadmin COE 183 Oct 7 23:16 VERSION
-r-xr-xr-x 1 sysadmin COE 168 Oct 7 23:16 DEINSTALL
-r--r--- 1 sysadmin COE 514 Oct 8 19:50 SegInfo
-rw-rw-rw- 1 root COE 123 Oct 8 19:50 Validated
-rw-rw-rw- 1 root other 135 Oct 8 20:09 Installed

/home/MALLT/man/man3
total 122
-r--r--- 1 sysadmin COE 3306 Jul 28 22:45 malltcatalogobs.3
-r--r--- 1 sysadmin COE 2496 Jul 28 22:45 malltconnect.3
-r--r--- 1 sysadmin COE 2655 Jul 28 22:45 malltdeletebyid.3
-r--r--- 1 313 COE 3306 Jul 28 22:45 malltcatalog.3
-r--r--- 1 sysadmin COE 2615 Jul 28 22:45 malltdeleteob.3
-r--r--- 1 sysadmin COE 3210 Jul 28 22:45 malltgetbyquery.3
-r--r--- 1 sysadmin COE 2444 Jul 28 22:45 malltdisconnect.3
-r--r--- 1 sysadmin COE 2342 Jul 28 22:45 malltfreell.3
-r--r--- 1 sysadmin COE 2669 Jul 28 22:45 malltgetbyid.3
-r--r--- 1 sysadmin COE 2813 Jul 28 22:45 malltgetob.3
-r--r--- 1 sysadmin COE 2929 Jul 28 22:45 malltupdateob.3
-r--r--- 1 sysadmin COE 2109 Jul 28 22:45 malltgetobs.3
-r--r--- 1 sysadmin COE 2880 Jul 28 22:45 malltingest.3
-r--r--- 1 sysadmin COE 2868 Jul 28 22:45 malltingestob.3
-r--r--- 1 sysadmin COE 2255 Jul 28 22:45 malltpurgebyquery.3
-r--r--- 1 sysadmin COE 3249 Jul 28 22:45 malltremoteconnect.3
-r--r--- 1 sysadmin COE 2517 Jul 28 22:45 malltremotedisconnect.3
-r--r--- 1 sysadmin COE 2479 Jul 28 22:45 malltsetconnection.3
-r--r--- 1 sysadmin COE 2966 Jul 28 22:45 malltupdatebyid.3

/home/MALLT/Integ/TestSuite
total 10280
-rwxrwxrwx 1 sysadmin COE 258626 Oct 7 17:59 MALLTsIngest
-rwxrwxrwx 1 sysadmin COE 513345 Oct 7 17:59 MALLTlibIngest
-rwxrwxrwx 1 sysadmin COE 12395 Oct 7 17:59 MALLT_TEST.README
-rwxrwxrwx 1 sysadmin COE 139797 Oct 7 17:59 MALLTsIngest2
-rwxrwxrwx 1 sysadmin COE 398613 Oct 7 17:59 MALLTlibIngest2
-rwxrwxrwx 1 sysadmin COE 369898 Oct 7 18:00 MALLTsUpdate
-rwxrwxrwx 1 sysadmin COE 369898 Oct 7 18:00 MALLTlibUpdate
-rwxrwxrwx 1 sysadmin COE 102871 Oct 7 18:00 MALLTsDelete
-rwxrwxrwx 1 sysadmin COE 365784 Oct 7 18:00 MALLTlibDelete
-rwxrwxrwx 1 sysadmin COE 365799 Oct 7 18:00 MALLTlibGet
-rwxrwxrwx 1 sysadmin COE 102886 Oct 7 18:00 MALLTsGet
-rwxrwxrwx 1 sysadmin COE 102869 Oct 7 18:00 MALLTsGetTS
-rwxrwxrwx 1 sysadmin COE 365786 Oct 7 18:00 MALLTlibGetTS
-rwxrwxrwx 1 sysadmin COE 111071 Oct 7 18:00 MALLTsLgsba
-rwxrwxrwx 1 sysadmin COE 369890 Oct 7 18:00 MALLTlibLgsba
```

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-rwxrwxrwx	1	sysadmin	COE	111071	Oct 7 18:00	MALLTslgsbi
-rwxrwxrwx	1	sysadmin	COE	369888	Oct 7 18:00	MALLTlibgsbi
-rwxrwxrwx	1	313	COE	365802	Oct 7 18:01	MALLTlibBrowse
-rwxrwxrwx	1	313	COE	102889	Oct 7 18:01	MALLTs1Browse
-rwxrwxrwx	1	313	COE	41239	Oct 7 18:01	MALLTs1Inverse
-rwxrwxrwx	1	313	COE	94694	Oct 7 18:01	MALLTlibInverse
drwxrwxrwx	8	sysadmin	COE	1024	Oct 9 02:51	TESTDATA

/home/MALLT/Integ/TestSuite/TESTDATA

total 12

drwxrwxrwx	2	sysadmin	COE	1024	Oct 8 20:09	DELETE
drwxrwxrwx	2	sysadmin	COE	1024	Oct 8 20:09	GET
drwxrwxrwx	2	sysadmin	COE	1024	Oct 8 20:09	INGEST
drwxrwxrwx	2	sysadmin	COE	1024	Oct 8 20:09	STN_BY_AREA
drwxrwxrwx	9	sysadmin	COE	1024	Oct 8 20:09	INGEST2
drwxrwxrwx	2	sysadmin	COE	1024	Oct 8 20:09	STN_BY_ID

/home/MALLT/Integ/TestSuite/TESTDATA/DELETE

total 8

-rwxrwxrwx	1	sysadmin	COE	3376	Oct 8 22:28	purge_all
------------	---	----------	-----	------	-------------	-----------

/home/MALLT/Integ/TestSuite/TESTDATA/GET

total 20

-rwxrwxrwx	1	sysadmin	COE	211	Oct 7 18:01	get_airep_time
-rwxrwxrwx	1	sysadmin	COE	252	Oct 7 18:01	get_rockShip_ll
-rwxrwxrwx	1	sysadmin	COE	220	Oct 7 18:01	get_99-00
-rwxrwxrwx	1	sysadmin	COE	182	Oct 7 18:01	get_all_wild
-rwxrwxrwx	1	sysadmin	COE	220	Oct 7 18:01	get_y2k
-rwxrwxrwx	1	sysadmin	COE	211	Oct 7 18:01	get_pirep_TimWindow
-rwxrwxrwx	1	sysadmin	COE	3536	Oct 8 21:45	get_all_types

/home/MALLT/Integ/TestSuite/TESTDATA/INGEST

total 54

-rwxrwxrwx	1	sysadmin	COE	121	Oct 7 18:01	airep.inp
-rwxrwxrwx	1	sysadmin	COE	2772	Oct 7 18:01	all.log
-rwxrwxrwx	1	sysadmin	COE	78	Oct 7 18:01	bouy.inp
-rwxrwxrwx	1	sysadmin	COE	72	Oct 7 18:01	metar.inp
-rwxrwxrwx	1	sysadmin	COE	81	Oct 7 18:01	op.inp
-rwxrwxrwx	1	sysadmin	COE	67	Oct 7 18:01	pirep.inp
-rwxrwxrwx	1	sysadmin	COE	52	Oct 7 18:01	rockFixd.inp
-rwxrwxrwx	1	sysadmin	COE	39	Oct 7 18:01	rockShip.inp
-rwxrwxrwx	1	sysadmin	COE	2435	Oct 7 18:01	run_all.log
-rwxrwxrwx	1	sysadmin	COE	108	Oct 7 18:01	speci.inp
-rwxrwxrwx	1	sysadmin	COE	83	Oct 7 18:01	bathy.inp
-rwxrwxrwx	1	sysadmin	COE	61	Oct 7 18:01	synFixd.inp
-rwxrwxrwx	1	sysadmin	COE	82	Oct 7 18:01	uaWndShip.inp
-rwxrwxrwx	1	sysadmin	COE	80	Oct 7 18:01	synMobil.inp
-rwxrwxrwx	1	sysadmin	COE	80	Oct 7 18:01	synShip.inp
-rwxrwxrwx	1	sysadmin	COE	108	Oct 7 18:01	taf.inp
-rwxrwxrwx	1	sysadmin	COE	79	Oct 7 18:01	uaTmpDrop.inp
-rwxrwxrwx	1	sysadmin	COE	52	Oct 7 18:01	uaTmpFixd.inp
-rwxrwxrwx	1	sysadmin	COE	80	Oct 7 18:01	uaTmpMobil.inp
-rwxrwxrwx	1	sysadmin	COE	79	Oct 7 18:01	uaTmpProf.inp
-rwxrwxrwx	1	sysadmin	COE	37	Oct 7 18:01	uaTmpShip.inp
-rwxrwxrwx	1	sysadmin	COE	26	Oct 7 18:01	uaWndFixd.inp
-rwxrwxrwx	1	sysadmin	COE	83	Oct 7 18:01	uaWndMobil.inp

/home/MALLT/Integ/TestSuite/TESTDATA/STN_BY_AREA

total 18

-rwxrwxrwx	1	sysadmin	COE	104	Oct 8 20:24	inp1
-rwxrwxrwx	1	sysadmin	COE	100	Oct 8 20:25	inp2

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-rwxrwxrwx	1	sysadmin	COE	102	Oct 8	20:25	inp3
-rwxrwxrwx	1	sysadmin	COE	104	Oct 8	20:25	inp4
-rwxrwxrwx	1	sysadmin	COE	104	Oct 8	20:25	inp5
-rwxrwxrwx	1	sysadmin	COE	104	Oct 8	20:25	inp6
-rwxrwxrwx	1	sysadmin	COE	104	Oct 8	20:25	inp7
-rwxrwxrwx	1	sysadmin	COE	105	Oct 8	20:25	inp8
-rwxrwxrwx	1	sysadmin	COE	104	Oct 8	20:26	inp9
/home/MALLT/Integ/TestSuite/TESTDATA/INGEST2							
total 18							
-rwxrwxrwx	1	sysadmin	COE	1005	Oct 7	18:01	TestAll
-rwxrwxrwx	1	313	COE	456	Oct 7	18:01	TestAll.bat
drwxrwxrwx	2	sysadmin	COE	1024	Oct 8	20:09	OCN
drwxrwxrwx	2	sysadmin	COE	1024	Oct 8	20:09	AIR
drwxrwxrwx	2	sysadmin	COE	1024	Oct 8	20:09	AERO
drwxrwxrwx	2	sysadmin	COE	1024	Oct 8	20:09	RKT
drwxrwxrwx	2	sysadmin	COE	1024	Oct 8	20:09	UAW
drwxrwxrwx	2	sysadmin	COE	1024	Oct 8	20:09	UAT
drwxrwxrwx	2	sysadmin	COE	1024	Oct 8	20:09	SYN
/home/MALLT/Integ/TestSuite/TESTDATA/STN_BY_ID							
total 4							
-rwxrwxrwx	1	sysadmin	COE	53	Oct 7	18:01	inp2
-rwxrwxrwx	1	sysadmin	COE	81	Oct 7	18:01	inp
/home/MALLT/Integ/TestSuite/TESTDATA/INGEST2/OCN							
total 10							
-rwxrwxrwx	1	sysadmin	COE	837	Oct 7	18:01	bathy.log
-rwxrwxrwx	1	sysadmin	COE	785	Oct 7	18:01	buoy.log
-rwxrwxrwx	1	sysadmin	COE	2050	Oct 7	18:01	profile.log
/home/MALLT/Integ/TestSuite/TESTDATA/INGEST2/AIR							
total 4							
-rwxrwxrwx	1	sysadmin	COE	382	Oct 7	18:01	airep.log
-rwxrwxrwx	1	sysadmin	COE	574	Oct 7	18:01	pirep.log
/home/MALLT/Integ/TestSuite/TESTDATA/INGEST2/AERO							
total 10							
-rwxrwxrwx	1	sysadmin	COE	960	Oct 7	18:01	metar.log
-rwxrwxrwx	1	sysadmin	COE	1262	Oct 7	18:01	speci.log
-rwxrwxrwx	1	sysadmin	COE	1597	Oct 7	18:01	taf.log
/home/MALLT/Integ/TestSuite/TESTDATA/INGEST2/RKT							
total 4							
-rwxrwxrwx	1	sysadmin	COE	760	Oct 7	18:01	fixed.log
-rwxrwxrwx	1	sysadmin	COE	612	Oct 7	18:01	ship.log
/home/MALLT/Integ/TestSuite/TESTDATA/INGEST2/UAW							
total 6							
-rwxrwxrwx	1	sysadmin	COE	585	Oct 7	18:01	fixed.log
-rwxrwxrwx	1	sysadmin	COE	650	Oct 7	18:01	mobile.log
-rwxrwxrwx	1	sysadmin	COE	654	Oct 7	18:01	ship.log
/home/MALLT/Integ/TestSuite/TESTDATA/INGEST2/UAT							
total 18							
-rwxrwxrwx	1	sysadmin	COE	1134	Oct 7	18:01	fixed.log
-rwxrwxrwx	1	sysadmin	COE	779	Oct 7	18:01	drop.log
-rwxrwxrwx	1	sysadmin	COE	1201	Oct 7	18:01	mobile.log
-rwxrwxrwx	1	sysadmin	COE	1194	Oct 7	18:01	ship.log
-rwxrwxrwx	1	sysadmin	COE	1408	Oct 7	18:01	profile.log

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```
/home/MALLT/Integ/TestSuite/TESTDATA/INGEST2/SYN
total 12
-rwxrwxrwx  1 sysadmin      COE      1375      Oct  7 18:01 fixed.log
-rwxrwxrwx  1 sysadmin      COE      1443      Oct  7 18:01 mobile.log
-rwxrwxrwx  1 sysadmin      COE      1440      Oct  7 18:01 ship.log
```

A.2 File Structure for Windows NT Delivery

```
\h\MAILT
total 0
drwxr-xr-x 5 0      everyone      0 Oct 18 12:17 Integ
drwxr-xr-x 11 0     everyone      0 Oct 18 12:17 SegDescrip
drwxr-xr-x 12 0     everyone      0 Oct 18 12:19 bin
drwxr-xr-x 8 0      everyone      0 Oct 18 12:19 lib
drwxr-xr-x 5 0      everyone      0 Oct 18 12:19 man
drwxr-xr-x 25 0     everyone      0 Oct 18 12:19 include

\h\MAILT\Integ
total 0
drwxr-xr-x 38 0    everyone      0 Oct 18 12:17 TestSuite

\h\MAILT\SegDescrip
total 12
-rw xr-xr-x 1 0     everyone      144 Jun 15 15:16 postinstall.bat
-rw r--r-- 1 0      everyone      266 Jun 15 15:16 seginfo.txt
-rw xr-xr-x 1 0     everyone      157 Jun 15 15:17 deinstall.bat
-rw r--r-- 1 0      everyone      550 Jun 19 11:09 segname
-rw r--r-- 1 0      everyone      7336 Oct 15 14:20 releasenotes
-rw r--r-- 1 0      everyone      183 Oct 15 14:22 version
-rw r--r-- 1 0      everyone      4306 Oct 16 06:16 fileattribs.txt

\h\MAILT\bin
total 205
-rw r--r-- 1 0      everyone      11024 Oct 15 14:40 malltutils.lib
-rw r--r-- 1 0      everyone      6656 Oct 15 14:40 malltutils.dll
-rw r--r-- 1 0      everyone      144486 Oct 16 13:55 malltkernel.lib
-rw r--r-- 1 0      everyone      200704 Oct 16 13:56 malltkernel.dll
-rw r--r-- 1 0      everyone      9728 Oct 16 14:01 malltdsmgr.dll
-rw r--r-- 1 0      everyone      9102 Oct 16 14:01 malltdsmgr.lib
-rw r--r-- 1 0      everyone      16384 Oct 16 14:02 malltapi.dll
-rw r--r-- 1 0      everyone      14812 Oct 16 14:02 malltapi.lib

\h\MAILT\lib
total 181
-rw r--r-- 1 0      everyone      8002 Oct 15 14:40 malltutils.lib
-rw r--r-- 1 0      everyone      329676 Oct 16 14:01 malltkernel.lib
-rw r--r-- 1 0      everyone      10876 Oct 16 14:01 malltdsmgr.lib
-rw r--r-- 1 0      everyone      20368 Oct 16 14:02 malltapi.lib

\h\MAILT\man
total 0
drwxr-xr-x 23 0    everyone      0 Oct 18 12:19 man3

\h\MAILT\include
total 42
-rw r--r-- 1 0      everyone      158 Jan 02 1998 mallproto.h
-rw r--r-- 1 0      everyone      633 Jan 02 1998 malltapi.h
-rw r--r-- 1 0      everyone      2119 Jan 02 1998 malltremsns.h
-rw r--r-- 1 0      everyone      1556 Mar 05 1998 malltdsmgr.h
-rw r--r-- 1 0      everyone      328 Mar 13 1998 malltllmgr.h
-rw r--r-- 1 0      everyone      1570 Jun 10 09:27 malltsurfaceob.h
-rw r--r-- 1 0      everyone      4280 Jul 22 15:49 malltoceanprofile.h
-rw r--r-- 1 0      everyone      1752 Jul 22 16:08 malltoceanob.h
-rw r--r-- 1 0      everyone      1258 Sep 02 14:02 malltypes.h
```

-rw-r--r--	1 0	everyone	4321	Sep 04	15:08	malltmetarob.h
-rw-r--r--	1 0	everyone	5510	Sep 09	14:27	malltcommon.h
-rw-r--r--	1 0	everyone	3827	Sep 21	12:42	malltupperairob.h
-rw-r--r--	1 0	everyone	1504	Sep 28	10:44	mallterr.h
-rw-r--r--	1 0	everyone	3429	Oct 01	10:17	malltmacros.h
-rw-r--r--	1 0	everyone	1298	Oct 08	14:53	malltdsmproto.h
-rw-r--r--	1 0	everyone	22354	Oct 14	07:29	malltkrnproto.h
-rw-r--r--	1 0	everyone	1240	Oct 15	09:13	malltdef.h
-rw-r--r--	1 0	everyone	737	Oct 15	09:26	malltexp.h
-rw-r--r--	1 0	everyone	2946	Oct 15	09:28	mallt.h
-rw-r--r--	1 0	everyone	1580	Oct 16	13:38	malltutlproto.h
-rw-r--r--	1 0	everyone	2205	Oct 16	13:39	malltobsproto.h

\h\MAILT\man\man3

total 38

-rw-r--r--	1 0	everyone	3306	Mar 30	1998	malltcatalogobs.3
-rw-r--r--	1 0	everyone	2615	Mar 30	1998	malltdeleteob.3
-rw-r--r--	1 0	everyone	2109	Mar 30	1998	malltgetobs.3
-rw-r--r--	1 0	everyone	2813	Mar 30	1998	malltgetob.3
-rw-r--r--	1 0	everyone	2868	Mar 30	1998	malltingestob.3
-rw-r--r--	1 0	everyone	2255	Mar 30	1998	malltpurgebyquery.3
-rw-r--r--	1 0	everyone	2966	Mar 30	1998	malltupdatebyid.3
-rw-r--r--	1 0	everyone	2929	Mar 30	1998	malltupdateob.3
-rw-r--r--	1 0	everyone	2213	Oct 15	10:24	malltdisconnect.3
-rw-r--r--	1 0	everyone	2305	Oct 15	10:24	malltconnect.3
-rw-r--r--	1 0	everyone	2539	Oct 15	14:41	malltdeletebyid.3
-rw-r--r--	1 0	everyone	1414	Oct 15	14:41	malltfreell.3
-rw-r--r--	1 0	everyone	2591	Oct 15	14:41	malltgetbyid.3
-rw-r--r--	1 0	everyone	4422	Oct 15	14:41	malltcatalog.3
-rw-r--r--	1 0	everyone	3038	Oct 15	14:41	malltremoteconnect.3
-rw-r--r--	1 0	everyone	2277	Oct 15	14:41	malltremotedisconnect.3
-rw-r--r--	1 0	everyone	2098	Oct 15	14:41	malltingest.3
-rw-r--r--	1 0	everyone	2231	Oct 15	14:41	malltsetconnection.3
-rw-r--r--	1 0	everyone	3245	Oct 15	14:41	malltgetbyquery.3

\h\MAILT\INTEG\TestSuite

total 2073

-rw-r--r--	1 0	everyone	13251	Oct 14	07:28	mallt_test.readme
-rwxr-xr-x	1 0	everyone	110592	Oct 16	14:04	malltdllget.exe
-rwxr-xr-x	1 0	everyone	323072	Oct 16	14:04	malltlibget.exe
-rwxr-xr-x	1 0	everyone	243200	Oct 16	14:05	malltdllingest.exe
-rwxr-xr-x	1 0	everyone	455680	Oct 16	14:06	malltlibingest.exe
-rwxr-xr-x	1 0	everyone	130560	Oct 16	14:06	malltdllingest2.exe
-rwxr-xr-x	1 0	everyone	343040	Oct 16	14:07	malltlibingest2.exe
-rwxr-xr-x	1 0	everyone	110592	Oct 16	14:07	malltdlldelete.exe
-rwxr-xr-x	1 0	everyone	323072	Oct 16	14:07	malltlibdelete.exe
-rwxr-xr-x	1 0	everyone	112640	Oct 16	14:08	malltdllupdate.exe
-rwxr-xr-x	1 0	everyone	325120	Oct 16	14:08	malltlibupdate.exe
-rwxr-xr-x	1 0	everyone	110592	Oct 16	14:09	malltdllgetts.exe
-rwxr-xr-x	1 0	everyone	323072	Oct 16	14:09	malltlibgetts.exe
-rwxr-xr-x	1 0	everyone	113152	Oct 16	14:10	malltdllgsba.exe
-rwxr-xr-x	1 0	everyone	325632	Oct 16	14:10	malltlibgsba.exe
-rwxr-xr-x	1 0	everyone	113152	Oct 16	14:10	malltdllgsbi.exe
-rwxr-xr-x	1 0	everyone	325632	Oct 16	14:11	malltlibgsbi.exe
-rwxr-xr-x	1 0	everyone	110592	Oct 16	14:11	malltdllbrowse.exe
-rwxr-xr-x	1 0	everyone	323072	Oct 16	14:12	malltlibbrowse.exe
drwxr-xr-x	10 0	everyone	0	Oct 18	12:19	TestData

\h\MAILT\INTEG\TestSuite\TESTDATA

total 0

drwxr-xr-x	5 0	everyone	0 Oct 18 12:19 Delete
------------	-----	----------	-----------------------

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```
drwxr-xr-x 11 0          everyone      0 Oct 18 12:19 Get
drwxr-xr-x 27 0          everyone      0 Oct 18 12:19 Ingest
drwxr-xr-x 13 0          everyone      0 Oct 18 12:19 get_stn_by_area
drwxr-xr-x  6 0          everyone      0 Oct 18 12:19 get_stn_by_id
drwxr-xr-x 11 0          everyone      0 Oct 18 12:19 Browse

\h\MALLT\INTEG\TestSuite\TESTDATA\Delete
total 1
-rw-r--r-- 1 0          everyone     203 Oct  8 13:24 purge_all

\h\MALLT\INTEG\TestSuite\TESTDATA\GET
total 8
-rw-r--r-- 1 0          everyone    220 Oct  5 11:59 get_99-00
-rw-r--r-- 1 0          everyone    211 Oct  5 11:59 get_airep_time
-rw-r--r-- 1 0          everyone    182 Oct  5 11:59 get_all_wild
-rw-r--r-- 1 0          everyone    211 Oct  5 12:00 get_pirep_timwindow
-rw-r--r-- 1 0          everyone    252 Oct  5 12:00 get_rockship_ll
-rw-r--r-- 1 0          everyone    220 Oct  5 12:00 get_y2k
-rw-r--r-- 1 0          everyone   3796 Oct  8 14:41 get_all_types

\h\MALLT\INTEG\TestSuite\TESTDATA\INGEST
total 25
-rw-r--r-- 1 0          everyone   121 Apr 16 1998 airep.inp
-rw-r--r-- 1 0          everyone   2772 Apr 16 1998 all.log
-rw-r--r-- 1 0          everyone   83 Apr 16 1998 bathy.inp
-rw-r--r-- 1 0          everyone   78 Apr 16 1998 buoy.inp
-rw-r--r-- 1 0          everyone   81 Apr 16 1998 op.inp
-rw-r--r-- 1 0          everyone   39 Apr 16 1998 rockship.inp
-rw-r--r-- 1 0          everyone  2435 Apr 16 1998 run_all.log
-rw-r--r-- 1 0          everyone   80 Apr 16 1998 synmobil.inp
-rw-r--r-- 1 0          everyone   80 Apr 16 1998 synship.inp
-rw-r--r-- 1 0          everyone   79 Apr 16 1998 uatmpdrop.inp
-rw-r--r-- 1 0          everyone   37 Apr 16 1998 uatmpship.inp
-rw-r--r-- 1 0          everyone   80 Apr 16 1998 uatmpmobil.inp
-rw-r--r-- 1 0          everyone   79 Apr 16 1998 uatmpprof.inp
-rw-r--r-- 1 0          everyone   83 Apr 16 1998 uawndmobil.inp
-rw-r--r-- 1 0          everyone   82 Apr 16 1998 uawndship.inp
-rw-r--r-- 1 0          everyone   67 May 11 16:31 pirep.inp
-rw-r--r-- 1 0          everyone   108 Jul  8 16:45 taf.inp
-rw-r--r-- 1 0          everyone   108 Jul  8 16:56 speci.inp
-rw-r--r-- 1 0          everyone   72 Jul 16 10:00 metar.inp
-rw-r--r-- 1 0          everyone   52 Jul 16 10:05 rockfixd.inp
-rw-r--r-- 1 0          everyone   61 Jul 16 10:05 synfixd.inp
-rw-r--r-- 1 0          everyone   52 Jul 16 10:05 uatmpfixd.inp
-rw-r--r-- 1 0          everyone   26 Jul 16 10:05 uawndfixd.inp

\h\MALLT\INTEG\TestSuite\TESTDATA\get_stn_by_area
total 9
-rw-r--r-- 1 0          everyone   104 Oct 15 13:56 inp1
-rw-r--r-- 1 0          everyone   100 Oct 15 13:56 inp2
-rw-r--r-- 1 0          everyone   102 Oct 15 13:56 inp3
-rw-r--r-- 1 0          everyone   104 Oct 15 13:56 inp4
-rw-r--r-- 1 0          everyone   104 Oct 15 13:56 inp5
-rw-r--r-- 1 0          everyone   104 Oct 15 13:56 inp6
-rw-r--r-- 1 0          everyone   104 Oct 15 13:56 inp7
-rw-r--r-- 1 0          everyone   105 Oct 15 13:56 inp8
-rw-r--r-- 1 0          everyone   104 Oct 15 13:56 inp9

\h\MALLT\INTEG\TestSuite\TESTDATA\get_stn_by_id
total 2
-rw-r--r-- 1 0          everyone   53 Jul  3 14:30 inp2
```

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```
-rw-r--r-- 1 0      everyone      81 Jul 03 14:32 inp
\h\MALLT\INTEG\TestSuite\TESTDATA\BROWSE
total 7
-rw-r--r-- 1 0      everyone      180 Oct 08 09:15 air.log
-rw-r--r-- 1 0      everyone      515 Oct 08 09:15 aer.log
-rw-r--r-- 1 0      everyone      180 Oct 08 09:15 pir.log
-rw-r--r-- 1 0      everyone      516 Oct 08 09:15 ocn.log
-rw-r--r-- 1 0      everyone      347 Oct 08 09:15 rkt.log
-rw-r--r-- 1 0      everyone      852 Oct 08 09:15 uat.log
-rw-r--r-- 1 0      everyone      515 Oct 08 09:15 uaw.log
```

Appendix B - Changes/Updates Since Preliminary Release

This release made the following changes:

Pri	PTR #	Summary
1	168	When executing an interactive ingest, seven types and subtypes produce errors.
1	172	When executing get_stn_by_area, I receive an application error.
1	173	The get test driver does not function properly.
2	153	When one radiosonde observation (with upper air temperature data) is ingested into the LLT database, no others can be ingested.
2	161	Already in transaction error occurs when doing a delete by ID.
2	169	Test driver for ingest does not support the type 2 and subtype 11.
2	170	ASW Domain is not supported in current implementation of TEDS.
2	225	Memory not deallocated on disconnect.
3	73	Ship speed and direction need to be added to bathy, buoy, and synoptic reports.
3	178	Sea Water Temperature (rsSst) field of Synoptic Summary Structure is not being saved to TEDS database.
3	195	Need to add station elevation to fixed station reports.
3	197	Buoy needs outer join.

Appendix C - Known Problems and Errors

Pri	PTR #	Summary
3	64	The get diagnostics informix call returns the wrong message length on the NT and a "%s" in the string on the HPUX (but correct length). On the NT the "%s" is expanded to the variable that it represents.
3	164	Catalog request returning table names with trailing blanks.
5	27	Change data type of fields to floats where conversions can be made or data may be derived.

Detailed Program Trouble Reports (PTRs) are contained on the following pages.

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